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(54) Garbage container with hinged lockable cover

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Garbage Container with Hinged Cover

This invention relates to a garbage container with hinged cover.

This type of garbage container is well known from the prior art, and is widely used. It relates to common garbage containers for storing domestic waste or similar. Garbage containers of this type usually comprise circular or rectangular cross-sections. At a lateral edge, the cover is linked with the garbage container via a hinged joint. In the closed position, the cover covers the opening of the garbage container, which in the functional position is located at the top. Since domestic waste is increasingly collected in volume in the process of garbage disposal, and the calculation of garbage disposal costs is calculated in volume, it may occur that garbage containers stored outside are filled by another person who thus dispose of their own garbage in other people's garbage containers.

Based on this prior art, the object of this invention is to provide a garbage container with a hinged cover, which allows only authorized persons access to its contents, yet allows the proper disposal of waste by the garbage collector, without the garbage collection company having to comply with special measures.

To achieve the foregoing objective, the invention proposes that the cover in the closed position be lockable by means of a locking device, and that, when the garbage container is in the

emptying position, the locking device can be switched from the locking position to the release position, so that the cover moves into the open position to allow the container to be emptied.

This enables the garbage container in the normal position, when positioned upright on the ground, to be accessed only by authorized persons in that the locking device can be activated and the cover can be opened. This makes it impossible for unauthorized persons to access the garbage container. To empty the garbage container, said container normally is turned upside down by a vehicle with a mechanical device. The locking device is designed so that when the placing the container upside down, the locking device necessarily is moved into the release position, so that the lockable cover automatically moves into the release position, and the waste in the container can be emptied into the garbage truck's designated space.

A preferred development is considered in that a locking means is provided as locking device at the lockable cover in the area opposite the swivel joint, and a counter-locking means is provided, which, by means of a locking means, preferably mounted at the container and preferably key-operated, is adjustable against the spring power in a release position, in which the locking means is released for opening the lockable cover, or preferably in that the locking means, which is spring-loaded in the closed position, is adjusted in the latching position, and that at the container an opening means is mounted, which acts upon the opening means, by means of which the counter-locking means necessarily is moved into the emptying position when the garbage container is turned upside down.

In addition, it is provided that the lockable cover in the area of the locking means configuration overlaps the container opening (in the closed position), and that at the container the counter-locking means together with the locking means, which are provided on the outside, are covered.

It may also be preferred to mount a stop hook as a locking means at the lockable cover, which in the regular functional position of the container with the cover being closed essentially is positioned vertically to the upright position of the container, that a clamp with an oblong hole, which is adjustable linear, in parallel to the container opening, is pushed into the closed position by means of the spring action of a reset spring position in which the stop hook engages in the

oblong hole and behind a lateral edge of said hole, in which the clamp either is movable from the locking position against the force of the reset spring into the release position by means of a key-operated locking cylinder or by means of a drop weight which is guided in vertically at the container, said clamp being moved into the release position when the upside down container is put into the emptying position, in which at said clamp a beveled edge is formed onto which the drop weight runs with another beveled edge, thus creating the forced displacement of the clamp into the release position. A preferred embodiment is presented in the drawing and described in detail in the following.

Of the drawing:

Figure 1 shows a lateral view of a partially presented garbage container with hinged cover;

Figure 2 similarly shows another position of the locking device;

Figures 3 and 4 show details of a projection or horizontal projection.

The figure shows a garbage container 1 with a hinged lockable cover 2. The hinged position of the lockable cover is not shown in the drawing.

The lockable cover 2 is in the closed position, as shown in Figure 1, which is lockable by means of a locking device 3. The locking position is shown in Figure 1, while the release position, which occurs with the upside down container, is shown in Figure 2. The locking position 3 can be operated only by an authorized person, so that only that person is able to open the container cover and place the garbage into the container. The locking device 3 excludes access to unauthorized persons.

The locking device 3 is designed, so that, when putting the garbage container 1 upside down from the position shown in Figure 1, in which the container cover points downward, the locking device 3 is necessarily adjustable from the locking position into a release position, so that the lockable cover 2 can be moved into the open position releasing the opening of the container. A

locking means 4 opposite the swivel joint is provided as a locking device 3 at the lockable cover, and at the container 1 a counter-locking device 5 is provided, which is attached to the container 1 with a locking means 7 preferably by means of a key 6, said locking device preferably being adjustable against the force of a reset spring 8 in a release position, in which the locking means 4 is released for opening the lockable cover 2. This position is shown in Figure 2.

Alternatively, the counter-locking means 5 is moved into the latching position, as shown in Figure 1, while under the effect of the reset spring 8, the locking means 7 is in the locking position. At the container 1, an opening means 9 is mounted, which has an effect on the counter-locking means 5, whereby the counter-locking means 5 necessarily is moved into the release position when the garbage container 1 is turned upside down in emptying position (Figure 2).

The lockable cover 2 in the area of the locking means configuration (4) is designed so that the container opening in the closed position considerably overlaps. At the container 1, on the outside of this overlapping area of the container, the counter-locking means 5 together with the locking means 7 are provided covered in a container bag or similar.

As locking means 4, a stop hook is fixed at the lockable cover 2, which, when the container 1 in the regular functional position with the cover 2 being closed essentially is the vertical position to the upright position of the container. As a counter-locking means 5, a linear movable clamp with an oblong hole (especially compare with Figure 3) is provided parallel to the opening of the container, by means of which the reset spring 8 is pushed into the closed position, in which the stop hook (4) engages into the oblong hole 10 and behind a lateral edge of said hole. The clamp (5) either is movable by means of a key-operated locking cylinder 7 from the locking position against the force of the reset spring 8 into the release position or by means of a drop weight (9), which is introduced into a vertical guide 11 at the container, when the container 1 in the upside-down emptying position is moved into the release position. For this purpose, a beveled area 12 is formed at the clamp 5, on which the drop weight (9) runs with another beveled area 13, and thus affects the forced displacement of the clamp (5) in the release position.

This invention is not limited to the embodiments, but is variable within the scope of the disclosure.

All new individual or combination characteristics disclosed in the specification and/or drawing are deemed to be relevant to the invention.

Claims:

1. A garbage container with hinged lockable cover, characterized in that the lockable cover (2) is lockable in the closed position by means of a locking device (3) and that the locking device (3) in the emptying position of the garbage container is necessarily moved from the locking position into a release position or necessarily moved, so that the lockable cover (2) can be moved or is movable into the open position releasing the opening of the container.
2. A garbage container as defined in claim 1, characterized in that a locking means (4) is provided as locking device (3) at the lockable cover (2) in the area opposite the swiveling joint, and at the container (1) a counter-locking means (5) is provided, which by means of a preferably key-operated locking device (7) mounted at the container (1) - preferably against the spring power - is movable in a release position in which the locking means (4) is released for opening the lockable cover (2) or - preferably under spring power - while the locking device (7) is in the locking position, is moved into the closed position, and that at the container (1) is mounted an opening means (9) which acts upon the counter-locking means (5), by means of which the counter-locking means (5) necessarily is moved into the release position when the upside down garbage container (1) is in the emptying position.
3. A garbage container as defined in claim 1 or 2, characterized in that the lockable cover (2) in the area of the locking means configuration overlaps the opening of the container (in the closed position) and the counter-locking means (5) together with the locking means (7) is so provided to be covered on the outside.
4. A garbage container as defined in claim 1 to 3, characterized in that a stop hook is mounted at the locking means (4) at the lockable cover (2), which in essence points vertically towards the upright position of the container (1), with the container (1) being in the normal functional position, that as a counter-locking means (5) a linear sliding clamp with an oblong hole (10) is provided parallel to the opening of the container, which by

means of a reset spring (8) is pushed into the locking position in which the stop hook engages in the oblong hole (10) and clamps behind a lateral edge of said oblong hole, in which the clamp is movable into the release position either by means of a key-operated locking cylinder (7) from the locking position against the force of the reset spring (8) or by means of a drop weight (9) which is guided in a vertical guide (11) at the container (1) when the upside down container (1) is in the emptying position, in which at the clamp a beveled edge (12) is formed down which the drop weight (9) runs and causes the forced displacement of the clamp into the release position.

Fig. 1



